wastes such as bagassee, rice straw and husk, straws of wheat, maize and bazra, cotton sticks are the main sources of non-conventional energy in the State of Punjab.

(b) A potential of about 2800 MW of energy from agricultural, including agro-industrial, wastes has been estimated for Punjab. The estimated costs for converting these wastes into energy include costs of storage, compacting, transportation, besides generation cost. The harnessing of the full potential of this energy resource, however, is limited by availability of capital resources, as well as of cost effective technologies.

(c) The Ministry of Non-conventional Energy Sources has launched national programmes for utilising the agricultural, including agro-industrial wastes, for power generation, through co-generation and gasification routes, for all States/UTs including Punjab. Biomass gasifier systems equivalent to 430 KW have been installed and 1000 KW equivalent are under installation at various locations in Punjab. A 10 MW rice straw based pilot project has been set up at Jalkheri in Punjab.

Energy Centres in States

4180. SHRI IQBAL SINGH: Will the PRIME MINISTER be pleased to state:

(a) whether Government have opened Energy Centres at Gurgaon in Haryana by assisting American and Indian firms;

(b) if so, the details thereof and the reasons therefor;

(c) whether such Energy Centres are likely to be opened in other States also, particularly in Punjab;

(d) if so, what steps are being taken by Government in this respect; and

(e) if not, the reasons therefor?

THE MINISTER OF STATE IN THE MINISTRY OF NON-CONVENTIONAL ENERGY SOURCES (SHRI S. KRISHNA KUMAR): (a) and (b) The Ministry of Non-conventional Energy Sources has established a Solar Energy Centre at Gwal Pahari in Gurgaon District of Haryana. The Centre conducts tests on various solar thermal, photovoltaic production. The Centre also provides consultancy, advisory services and information on various solar energy technologies and applications. The Centre is the nodal institution to coordinate cooperation in the field of solar energy among the G-15 countries and has facilities for training activities. The Centre has received assistance from the United Nations Development Programme and Governments of USA and Germany for the establishment of its various facilities. No direct assistance has been provided for this centre by American or Indian firms.

(c) to (e) There is no proposal to establish such a Centre in other places in India as this is a National facility and costly to replicate.

Community Bio-Gas Plants in Andhra Pradesh

4181. SHRI V. HANUMANTHA RAO: Will the PRIME MINISTER be pleased to state:

(a) whether there is any proposal to encourage municipal and urban authorities to set up Community Bio-Gas Plants;

(b) whether any pilot schemes for cities have been prepared;

(c) if so, the details thereof;

(d) whether there is any proposal to set up such a pilot Bio-gas Plant in Hyderabad;

(e) if so, the details thereof;

(f) in what manner Government propose to encourage development of non-conventional energy in urban areas; and

(g) whether there is any such proposal